

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 85409-29	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/CA2004/000726	International filing date (day/month/year) 14/05/2004	(Earliest) Priority Date (day/month/year) 16/05/2003
Applicant UNIVERSITE LAVAL		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 8 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☒ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box III.

2. ☒ Certain claims were found unsearchable (See Box II).

3. ☐ Unity of invention is lacking (see Box III).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regards to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. 1

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

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INTERNATIONAL SEARCH REPORT

International application No.

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Box No. 1 Nucleotide and/or amino acid sequence(s) (Continuation of Item 1.b of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of:
- a. type of material
- ☒ a sequence listing
- ☐ table(s) related to the sequence listing
- b. format of material
- ☒ in written format
- ☒ in computer readable form
- c. time of filing/furnishing
- ☒ contained in the international application as filed
- ☒ filed together with the international application in computer readable form
- ☐ furnished subsequently to this Authority for the purpose of search
2. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
3. Additional comments:

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PCT/CA2004/000726	
A. CLASSIFICATION OF SUBJECT MATTER IPC 7 A61P25/00 A61P23/00 A61K39/395 A61K31/00 G01N33/48	
According to International Patent Classification (IPC) or to both national classification and IPC	
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 7 A61K	
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched	
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, BIOSIS, MEDLINE, EMBASE, WPI Data, PAJ, CHEM ABS Data	
C. DOCUMENTS CONSIDERED TO BE RELEVANT	
Category *	Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No.
X	→ US 2002/028779 A1 (HIGH KARIN WESTLUND ET AL) 7 March 2002 (2002-03-07) paragraph '0010! - paragraph '0012! paragraph '0023! paragraph '0028! - paragraph '0029! paragraph '0041! paragraph '0050! - paragraph '0051! example 2 claims 4,12,19 --- -/--
<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C.	
<input checked="" type="checkbox"/> Patent family members are listed in annex.	
* Special categories of cited documents : "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family	
Date of the actual completion of the international search	Date of mailing of the international search report
23 September 2004	08/10/2004
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl Fax: (+31-70) 340-3016	Authorized officer Irion, A

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		PCT/CA2004/000726
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>✓ WO 02/102232 A (UNIV CALIFORNIA ; LEVINE JON DAVID (US); MESSING ROBERT O (US)) 27 December 2002 (2002-12-27)</p> <p>page 7, line 4 - line 8 page 3, line 1 - line 2 page 10, line 20 - line 23 page 14, line 7 - line 9 page 56, line 17 - line 20 claim 94</p>	<p>1-13,17, 18, 21-37, 40,41, 53-57, 60,61,64</p>
X	<p>✓ ALEY KOCHUVELIKAKAM O ET AL: "Role of protein kinase A in the maintenance of inflammatory pain" JOURNAL OF NEUROSCIENCE, vol. 19, no. 6, 15 March 1999 (1999-03-15), pages 2181-2186, XP002297725 ISSN: 0270-6474 abstract</p>	<p>1-13,17, 18, 21-37, 40,41, 53-57, 60,61,64</p>
X	<p>✓ HUA XIAO-YING ET AL: "Inhibition of spinal protein kinase C reduces nerve injury-induced tactile allodynia in: neuropathic rats" NEUROSCIENCE LETTERS, vol. 276, no. 2, 3 December 1999 (1999-12-03), pages 99-102, XP002297726 ISSN: 0304-3940 abstract</p>	<p>1-13,17, 18, 21-37, 40,41, 53-57, 60,61,64</p>
X	<p>✓ DATABASE BIOSIS 'Online! BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; 2001, FANG L ET AL: "CaMK II signaling in central sensitization in a rat model of visceral pain" XP002297727 Database accession no. PREV200200002912 abstract & SOCIETY FOR NEUROSCIENCE ABSTRACTS, vol. 27, no. 2, 2001, page 2163, 31ST ANNUAL MEETING OF THE SOCIETY FOR NEUROSCIENCE; SAN DIEGO, CALIFORNIA, USA; NOVEMBER 10-15, 2001 ISSN: 0190-5295</p>	<p>1-7,9, 11-13, 19-37, 42,43, 53-57, 62-64</p>

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C.(Continuation) DOCUMENTS CONSIL D TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	✓ WO 2004/032870 A (RINAT NEUROSCIENCE CORP ; SHELTON DAVID L (US); VERGARA GERMAN J (US)) 22 April 2004 (2004-04-22) paragraph '0042!; figure 9 paragraph '0128! paragraph '0185!; example 5	1-16, 21-39, 53-59,64
P, X	✓ COULL JEFFREY A M ET AL: "Trans-synaptic shift in anion gradient in spinal lamina I neurons as a mechanism of neuropathic pain." NATURE (LONDON), vol. 424, no. 6951, 21 August 2003 (2003-08-21), pages 938-942, XP002294556 ISSN: 0028-0836 the whole document	44-52, 65-81
P, A		1-43, 53-64
A	✓ WO 93/00909 A (REGENERON PHARMA) 21 January 1993 (1993-01-21) the whole document	1-16, 21-39, 53-59,64
A	✓ WO 01/85151 A (RAYCHAUDHURI SIBA P ; RAYCHAUDHURI SMRITI K (US); FARBER EUGENE M (US)) 15 November 2001 (2001-11-15) the whole document	1-16, 21-39, 53-59,64
A	✓ DE PLATER G M ET AL: "Venom from the platypus, Ornithorhynchus anatinus, induces a calcium-dependent current in cultured dorsal root ganglion cells" JOURNAL OF NEUROPHYSIOLOGY (BETHESDA), vol. 85, no. 3, March 2001 (2001-03), pages 1340-1345, XP002294557 ISSN: 0022-3077 the whole document	1-16, 21-39, 53-59,64

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International Application No. PCT/CA2004 /000726

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**Continuation of Box II.1**

Although claims 1-21,31,33,35-43,53-81 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

Although claims 65-81 are directed to a diagnostic method practised on the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CA2004/000726**Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 1-21, 31, 33, 35-43, 53-81 (all partially)
because they relate to subject matter not required to be searched by this Authority, namely:
see FURTHER INFORMATION sheet PCT/ISA/210
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

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Information on patent family members

PCT/CA2004/000726

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
→ US 2002028779 A1	07-03-2002	NONE	
✓ WO 02102232 A	27-12-2002	WO 02102232 A2 US 2003008807 A1	27-12-2002 09-01-2003
✓ WO 2004032870 A	22-04-2004	WO 2004032870 A2	22-04-2004
✓ WO 9300909 A	21-01-1993	AU 2322392 A CA 2112799 A1 EP 0593663 A1 IE 921315 A1 JP 6509333 T NZ 242467 A PT 100424 A WO 9300909 A1 ZA 9202946 A	11-02-1993 21-01-1993 27-04-1994 13-01-1993 20-10-1994 27-06-1995 29-10-1993 21-01-1993 30-12-1992
✓ WO 0185151 A	15-11-2001	AU 6132401 A WO 0185151 A2	20-11-2001 15-11-2001

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